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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/780,608	02/12/2001	Jochen Retter	225/49620	9122

7590 09/10/2004

Evenson, McKeown, Edwards & Lenahan, P.L.L.C.
ATTN: PATENT DEPARTMENT
1001 Pennsylvania Ave. N.W.
Washington, DC 20004

EXAMINER	
BONURA, TIMOTHY M	

ART UNIT	PAPER NUMBER
2114	7

DATE MAILED: 09/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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Washington, DC 20005

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Office Action Summary	Application No.	Applicant(s)	
	09/780,608	RETTER ET AL.	
	Examiner	Art Unit	
	Tim Bonura	2114	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 February 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5* is/are rejected.

7)☒ Claim(s) *6* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 February 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *6 and 7*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable by Sonderman, et al, U.S. Patent Number 6,546,508. Regarding claim 1:

a. Regarding the limitation of "the first control unit generates the transmitted signal and a second signal complementary thereto on different paths and, sends them to the memory, together with two additional signals, which are indicative of the respectively paths," Sonderman discloses a system with a fault detection unit adapted to determine if a fault condition exists with the processing tool based on state data which is transmitted along with operational state data. (Lines 45-53 and 60-67 of Column 1). Sonderman discloses that the fault detection unit compares the received tool state data from the APC to the fault model data also received. (Lines 41-42 of Column 3). Soderman does not disclose that the second signal is complementary to the first signal. It would have been obvious to one of ordinary skill in the art at the time of the invention for the tool state

data and the fault model data would be complementary signal to each other. One of ordinary skill would have been motivated because Soderman discloses that the fault model data included tool state data from similar type tools that have operated successfully before. (Lines 43-46 of Column 4).

b. Regarding the limitation of "the third control unit reads out the transmitted and additional signals from the memory, and checks them, and i) upon detection of an error, switches off the first control unit or, ii) if the signals are correct, generates different types of test or safety signals and sends them to the memory," Sonderman discloses a system with a fault detection unit which compares the received tool state data from the APC to the fault model data also received. (Lines 41-46 of Column 3). The fault detection unit sends the results of failure or proper working condition back to the APC. (Lines 57-61 of Column 3). If an error is detected the tool maybe be shut down. (Lines 64-67 of Column 4).

c. Regarding the limitation of "the first control unit reads out the test or safety signals from the memory and checks them and, i) upon detection of an error, switches itself off, or ii) if the test or safety signals are correct, feeds the transmitted signal and at least one prescribed selection of the test or safety signals to the second control unit," Sonderman discloses a system with a plan executor which receives signals back from the fault detection unit. (Lines 21-22 of Column 5). The plan executer further tests the data for faults. If faults are still found the tool is shut down. (Lines 26-33 of Column 5).

4. Claims 2-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sonderman, et al, U.S. Patent Number 6,546,508 as applied to claim 1 above, and further in view of Gerstung,

et al, U.S. 5,436,837. Regarding claim 2, Sonderman discloses a system with a fault detection unit that passes status data and operational data to a fault detection unit and back to the APC. (see claim 1 above). Sonderman does not disclose a system with a second control to test the signals. Gerstung discloses a system with a second controller that read the data and a safety signal from the main processor. (Lines 37-45 and 49-52 of Column 2). It would have been obvious to one of ordinary skill at the time of the invention to combine the transmission of signals to a fault detection unit and the verification of errors in those signals of Sonderman with the transmission of a signal to a second monitoring device of Gerstung. One would have been motivated to combine the art because Sonderman discloses that addition sensing equipment made be add to determine faulty data for sensors. (Liens 66-67 of Column 2 and Lines 1-9 of Column 3). The second monitoring device of Gerstung discloses to detect more errors than a system with a watchdog timer. (Lines 58-62 of Column 1).

5. Regarding claim 3, Sonderman discloses a system with a fault detection until adapted to determine if a fault condition exists with the processing tool based on state data that is transmitted along with operational state data. (Lines 45-53 and 60-67 of Column 1). Sonderman does not disclose a system with a second control to test the signals. Gerstung discloses a system with a second controller that read the data and a safety signal from the main processor. (Lines 37-45 and 49-52 of Column 2). It would have been obvious to one of ordinary skill at the time of the invention to combine the transmission of signals to a fault detection unit and the verification of errors in those signals of Sonderman with the transmission of a signal to a second monitoring device of Gerstung. One would have been motivated to combine the art because Sonderman discloses that addition sensing equipment made be add to determine faulty data for

sensors. (Liens 66-67 of Column 2 and Lines 1-9 of Column 3). The second monitoring device of Gerstung discloses to detect more errors than a system with a watchdog timer. (Lines 58-62 of Column 1).

6. Regarding claim 4, Sonderman discloses a system with a fault detection unit that compares the received tool state data from the APC to the fault model data also received. (Lines 41-46 of Column 3). The fault detection unit sends the results of failure or proper working condition back to the APC. (Lines 57-61 of Column 3). If an error is detected the tool maybe be shut down. (Lines 64-67 of Column 4). Sonderman does not disclose a system with a second control to test the signals. Gerstung discloses a system with a second controller that read the data and a safety signal from the main processor. (Lines 37-45 and 49-52 of Column 2). It would have been obvious to one of ordinary skill at the time of the invention to combine the transmission of signals to a fault detection unit and the verification of errors in those signals of Sonderman with the transmission of a signal to a second monitoring device of Gerstung. One would have been motivated to combine the art because Sonderman discloses that addition sensing equipment made be add to determine faulty data for sensors. (Liens 66-67 of Column 2 and Lines 1-9 of Column 3). The second monitoring device of Gerstung discloses to detect more errors than a system with a watchdog timer. (Lines 58-62 of Column 1).

7. Regarding claim 5, Sonderman discloses a system with a plan executor that receives signals back from the fault detection unit. (Lines 21-22 of Column 5). The plan executer further tests the data for faults. If faults are still found the tool is shut down. (Lines 26-33 of Column 5). Sonderman does not disclose a system with a second control to test the signals. Gerstung discloses a system with a second controller that read the data and a safety signal from the main

processor. (Lines 37-45 and 49-52 of Column 2). It would have been obvious to one of ordinary skill at the time of the invention to combine the transmission of signals to a fault detection unit and the verification of errors in those signals of Sonderman with the transmission of a signal to a second monitoring device of Gerstung. One would have been motivated to combine the art because Sonderman discloses that addition sensing equipment made be add to determine faulty data for sensors. (Liens 66-67 of Column 2 and Lines 1-9 of Column 3). The second monitoring device of Gerstung discloses to detect more errors than a system with a watchdog timer. (Lines 58-62 of Column 1).

Allowable Subject Matter

8. Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter: Regarding claim 6, the prior art of record does not teach or suggest transmitted signal and the second signal are complementary to one another in a bitwise fashion.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Tim Bonura.**

- The examiner can normally be reached on **Mon-Fri: 7:30-5:00, every other Friday off**. The examiner can be reached at: **703-305-7762**.

11. If attempts to reach the examiner by telephone are unsuccessful, please contact the examiner's supervisor, **Rob Beausoliel.**

- The supervisor can be reached on **703-305-9713.**

12. The fax phone numbers for the organization where this application or proceeding is assigned are:

- **703-872-9306 for all patent related correspondence by FAX.**

13. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov/. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

14. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the **receptionist** whose telephone number is: **703-305-3900.**

15. Responses should be mailed to:

- **Commissioner of Patents and Trademarks**

  P.O. Box 1450

  Alexandria, VA 22313-1450

NADEEM IQBAL
PRIMARY EXAMINER

Tim Bonura
Examiner
Art Unit 2114

tmb
March 22, 2004